

SCHOTTKY BARRIER RECTIFIER

Features

TO-220AB

- ◆ The plastic package carries Underwriters Laboratory Flammability Classification 94V-0
- ◆ Construction utilizes void-free molded plastic technique
- ◆ Low reverse leakage
- ◆ High forward surge current capability
- ◆ High temperature soldering guaranteed: 250°C, 0.25"(6.35mm) from case for 10 seconds



Maximum Ratings And Electrical Characteristics

Ratings at 25°C ambient temperature unless otherwise specified.

Single phase half-wave 60Hz, resistive or inductive load, for capacitive load current derate by 20%.

Parameter	SYMBOLS	MBR 3045CT	MBR 3060CT	MBR 30100CT	MBR 30150CT	MBR 30200CT	UNITS
Marking Code							
Maximum repetitive peak reverse voltage	V _{RRM}	45	60	100	150	200	V
Maximum RMS voltage	V _{RMS}	32	42	70	105	140	V
Maximum DC blocking voltage	V _{DC}	45	60	100	150	200	V
Maximum average forward rectified current (see fig.1) Per Diode Total Device	I _(AV)	15.0 30.0					A
Peak forward surge current 8.3ms single half sine-wave superimposed on rated load (JEDEC Method)	I _{FSM}	250			300		A
Maximum instantaneous forward voltage at 15.0A	V _F	0.70	0.75	0.85	0.95		V
Maximum DC reverse current at rated DC blocking voltage TA=25°C TA=100°C	I _R	1.0			0.2		mA
		15.0	50.0		50.0		
Typical thermal resistance (NOTE 2)	R _{θJC}	2.0			1.5		°C/W
Operating junction temperature range	T _J	-55 to +150					°C
storage temperature range	T _{STG}	-55 to +150					°C

Note: 1. Measured at 1MHz and applied reverse voltage of 4.0V D.C.

2. Thermal resistance from junction to case.

Ratings And Characteristic Curves

Fig.1 Typical Forward Current Derating Curve

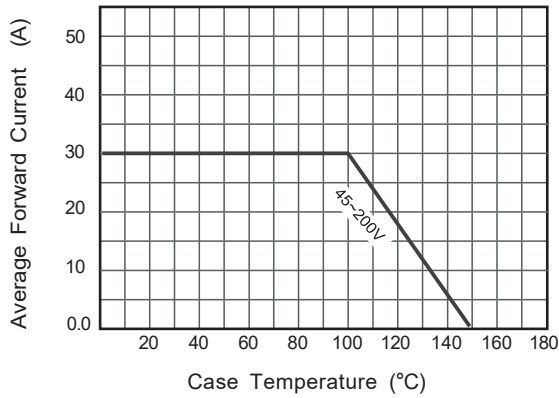


Fig.2 Typical Reverse Characteristics

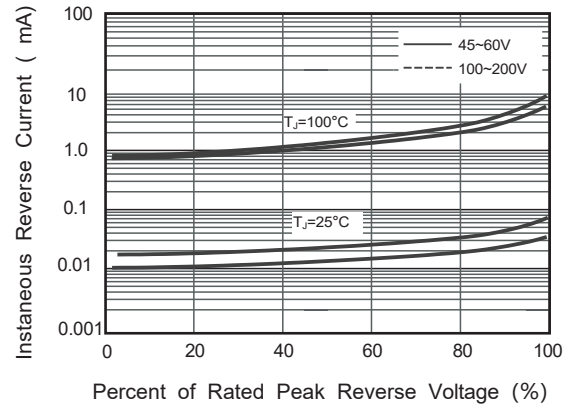


Fig.3 Typical Forward Characteristic(per leg)

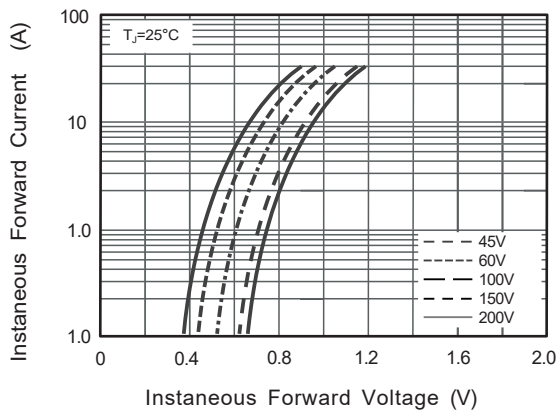
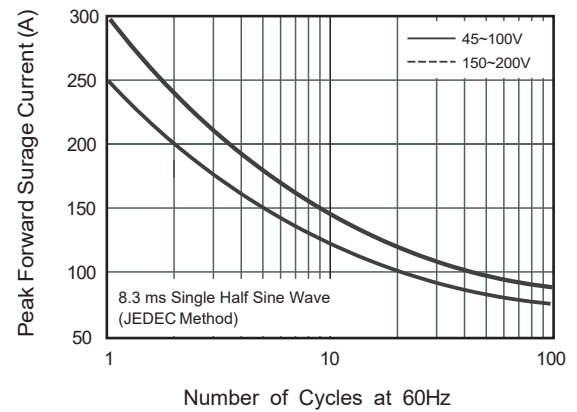


Fig.4 Maximum Non-Repetitive Peak Forward Surge Current



The curve above is for reference only.